IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A packet communication method comprising the steps of:

establishing a single radio layer 2 connection based on a radio layer 2 protocol, between a mobile station and a controller device;

receiving, at the controller device, a plurality of data packets in which respective qualities of service are set;

inputting, at the controller device, the plurality of data packets to queues corresponding to the respective qualities of service;

determining, at the controller device, a ~~transmission~~ timing for taking out each of the plurality of data packets from the queues corresponding to the respective qualities of service ~~of a received data packet~~, based on ~~a quality~~ the respective qualities of service ~~set in the data packet~~; and

multiplexing, at the ~~determined transmission timing~~ controller device, each of the plurality of data ~~packet~~ packets taken from the queues at the determined timing into a radio layer 2 protocol data unit of a fixed length which is transmitted and received on the single radio layer 2 connection.

Claim 2 (Currently Amended): A controller device comprising:

a radio layer 2 connection establishing unit configured to establish, with a mobile station, a single radio layer 2 connection based on a radio layer 2 protocol;

a reception unit configured to receive a plurality of data packets in which respective qualities of service are set;

an input unit configured to input the plurality of data packets to queues corresponding to the respective qualities of service;

a transmission timing determining unit configured to determine a ~~transmission~~ timing for taking out each of the plurality of data packets from the queues corresponding to the respective qualities of service ~~of a received data packet~~, based on ~~a quality~~ the respective qualities of service ~~set in the data packet~~; and

a multiplexing unit configured to multiplex~~, at the determined transmission timing,~~ each of the plurality of data ~~packet~~ packets taken from the queues at the determined timing into a radio layer 2 protocol data unit of a fixed length which is transmitted and received on the single radio layer 2 connection.

Claim 3 (Currently Amended): The controller device as set forth in claim 2 further comprising,

a transmitting unit configured to transmit, by a transport technology, the radio layer 2 protocol data unit into which each of the plurality of data ~~packet~~ packets is multiplexed.

Claim 4 (Currently Amended): A mobile station comprising:

a radio layer 2 connection establishing unit configured to establish, with a controller device, a single radio layer 2 connection based on a radio layer 2 protocol;

an input unit configured to input a plurality of data packets, in which respective qualities of service are set, to queues corresponding to the respective qualities of service;

a transmission timing determining unit configured to determine a ~~transmission~~ timing ~~of a received data packet~~ for taking out each of the plurality of data packets from the queues corresponding to the respective qualities of service, based on ~~a quality~~ the respective qualities of service ~~set in the data packet~~; and

a multiplexing unit configured to multiplex, ~~at the determined transmission timing,~~ each of the plurality of data ~~packet~~ packets taken from the queues at the determined timing into a radio layer 2 protocol data unit of a fixed length which is transmitted and received on the single radio layer 2 connection.

Claim 5 (Currently Amended): The mobile station as set forth in claim 4 further comprising,

a transmitting unit configured to transmit, by a radio access technology, the radio layer 2 protocol data unit into which each of the plurality of data ~~packet~~ packets is multiplexed.

Claim 6 (Currently Amended): A packet communication method comprising ~~the steps of~~:

~~at a mobile station,~~ establishing, at a mobile station, a single radio layer 2 connection based on a radio layer 2 protocol;

establishing a plurality of tunneling connections ~~between two or more controller devices~~ for respective qualities of service, between a first controller device and a second controller device; [[and]]

receiving, at the first controller device, a plurality of data packets in which the respective qualities of service are set and which are transmitted from the mobile station, through the single radio layer 2 connection or a single tunneling connection;

determining, at the first controller device, a tunneling connection associated with a terminal address of the mobile station and a quality of service which are included in each of the received plurality of data packets, among a plurality of tunneling connections for respective qualities of service; and

relaying, at the first controller device, each of the plurality of data packets to the second controller device through the determined tunneling connection

~~at a first controller device, referring to a terminal address included in a data packet which is multiplexed on the radio layer 2 connection and transmitted from the mobile station, and relaying the data packet through a tunneling connection associated with the terminal address~~.

Claim 7 (Currently Amended): The packet communication method as set forth in claim 6 further comprising the steps of:

~~at the mobile station,~~ transmitting, at the mobile station, a communication start request;

~~at the first controller device,~~ transmitting, at the first controller device, a tunneling connection establishment request to [[a]] the second controller device in accordance with the communication start request;

~~at the second controller device,~~ establishing, at the second controller device, a tunneling connection with the first controller device in accordance with the tunneling connection establishment request, and associating the established tunneling connection with the terminal address of the mobile station; and

communicating the associated terminal address to the mobile station.

Claim 8 (Currently Amended): A controller device comprising:

a tunneling connection establishing unit configured to establish a plurality of tunneling connections for respective qualities of service with a certain controller device;

~~an associating unit configured to associate a terminal address included in a data packet with a tunneling connection;~~

a data packet receiving unit configured to receive a plurality of data ~~packet which is multiplexed on a radio layer 2 connection and transmitted from a mobile station~~ packets in which the respective qualities of service are set and which are transmitted from a mobile station, through a single radio layer 2 connection or a single tunneling connection; and

a relay unit configured to ~~refer to a terminal address included in the received data packet and relay the data packet through a tunneling connection associated with the terminal address~~ determine a tunneling connection associated with a terminal address of the mobile station and a quality of service which are included in each of the received plurality of data packets, among a plurality of tunneling connections for respective qualities of service, and to relay each of the plurality of data packets to the second controller device through the determined tunneling connection.